

The Rehabilitation Engineering Research Center on Communication Enhancement (the AAC-RERC) is comprised of partners at seven sites located across the United States. As researchers, teachers, engineers, business leaders, and individuals who use augmentative and alternative communication (AAC) technologies, we work together in a virtual environment with the ultimate goal of improving AAC technology. Our accomplishments over our initial 5-year funding period established a track record of successfully completing projects that yielded desirable outcomes, thus leading to a second five years of funding from the National Institute on Disability and Rehabilitation Research (NIDRR).

OUR MISSION

To assist people who rely on augmentative and alternative communication to achieve their goals by advancing and promoting AAC technologies and supporting the individuals who use, manufacture, and recommend them.



AAC-RERC

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Alternate formats of this document are available upon request.

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REHABILITATION ENGINEERING RESEARCH CENTER

ON COMMUNICATION ENHANCEMENT

DUKE UNIVERSITY
TEMPLE UNIVERSITY
PENN STATE UNIVERSITY
CHILDREN'S HOSPITAL BOSTON
UNIVERSITY OF NEBRASKA AT LINCOLN
AUGMENTATIVE COMMUNICATION, INC.
STATE UNIVERSITY OF NEW YORK AT BUFFALO

PROJECT AREAS

RESEARCH

The AAC-RERC research program builds upon needs and future directions identified by AAC stakeholders. Our **research** program consists of projects within three research areas.

Improving AAC technology to better support societal roles

Penn State University and Temple University are conducting projects with the goal to provide commercially-available technologies that support developing literacy skills, increase employment of AAC users through telework, and develop telework support materials and vocabulary/symbol sets that represent adult social roles.

Enhancing AAC access by reducing cognitive/linguistic load

Projects at Penn State, University of Nebraska, and Children's Hospital Boston focus on developing and using new AAC interfaces to improve access and usability, learnability, and acceptance of AAC technologies.

Enhancing AAC Usability and Performance

Duke University and State University of New York at Buffalo are conducting projects that strive to improve connectivity between AAC and information technology (IT), monitor the performance of people who rely on AAC in ways that lead to improved AAC technologies, and evaluate specific features of AAC technology using simulations.

DEVELOPMENT

The AAC-RERC development program also builds upon needs and future directions identified by AAC stakeholders. Our **development** program consists of activities that seek to enhance the technical capacity of the AAC field.

Technology and Policy Watch

"Tech Watch" monitors technology needs and developments, identifies partnerships that could lead to efforts to improve AAC technologies, and explores Federal Lab Consortium activities to locate appropriate leading edge technologies for the AAC field. "Policy Watch" closely follows the standards, guidelines, and other policies affecting AAC technology and its applications, such as Medicare funding of speech generating devices (SGDs).

New Interfaces

Buffalo, Duke, and Nebraska are collaborating on projects that will develop design specs and prototypes for interfaces to AAC/AT technologies. Projects will focus on (a) making more effective use of residual speech; (b) utilizing dysarthric speech as a means of AAC/AT access; (c) using gestures as a AAC/AT access technique and (c) investigating the potential of brain interface control.

Reducing the Cognitive/Linguistic Burden on AAC Users

Nebraska, Buffalo, and Duke are collaborating to develop a WebCrawler that automatically retrieves and formats content from the Internet, and technologies that can assist communication partners.

TRAINING

In addition to the ongoing traditional training activities such as coursework, mentoring, supervision, and presentations at the preservice and inservice levels, the AAC-RERC educates the public through a State of the Science Conference, the AAC-RERC website, a Webcast series, ACETS Online through E-Coaching, a High School Training in AAC/AT, and the AAC-RERC Writers' Brigade (an AAC user project).

DISSEMINATION

The dissemination plan for the AAC-RERC enables us to reach all AAC stakeholders. The central distribution tool is our AAC-RERC website, with links to all partner websites. Partners present information at conferences, through journal articles and exhibits, and over webcasts. The electronic listserv, ACOLUG, provides RERC-related topics to the AAC community, as do international newsletters Augmentative Communication News and Alternatively Speaking. The AAC-RERC Writers' Brigade helps the Center to spread the word about AAC-RERC happenings.